

**Second Circular for The 1st IReNA-Ukakuren Joint Workshop**  
*“Advancing Professional Development in Nuclear Astrophysics and Beyond”*  
28th August - 1st September 2023

## **Overview**

Jointly hosted by the IReNA and Ukakuren collaborations for the first time, this workshop will bring together participants from US and Japanese research institutes interested in nuclear physics experiments, nuclear theory, astronomical observations, and astrophysics theory. The workshop intends to address recent advances in nuclear astrophysics and promote discussions across this interdisciplinary field. We look forward to welcoming researchers across Japan and the US this late summer.

One of the main aims of this workshop is to exchange human resources across Japan and the US, with a core emphasis on professional development of the younger generation of researchers, keeping in line with the IReNA focus area 8: Professional Development and Broadening Participation. A special session will be scheduled to share information on various career paths in academic fields, including a mentor lunch meeting with senior researchers from the IReNA network.

The website for the workshop is: <https://indico2.cns.s.u-tokyo.ac.jp/event/249/>

## **Key Topics**

The workshop will cover a wide range of topics in Nuclear Astrophysics, including but not limited to:

- Nuclear Equation of State
- Nuclear structures and reactions for astrophysics
- Stellar evolution, explosive phenomena, and nucleosynthesis
- The early Universe: Big Bang nucleosynthesis and metal-poor stars
- Chemical evolution of star clusters and galaxies
- New facilities and experimental techniques
- Neutrino and particle physics
- Recent hot topics and others

## **Invited Speakers**

A balanced mixture of researchers from the US and Japan will contribute invited talks covering one or more key topics related to nuclear physics experiments, nuclear theory, astronomical observations, and astrophysics theory.

- Nanae Domoto (Tohoku University, Miyagi)
- Yutaka Hirai (Tohoku University / Notre Dame University)
- Erika Holmbeck (Carnegie Observatories, California)
- Azusa Inoue (RCNP, Osaka)

- Rahul Jain (Michigan State University, Michigan)
- Heshani Jayatissa (Los Alamos, New Mexico)
- Chinami Kato (Tokyo University of Science, Tokyo)
- Eiji Kido (RIKEN, Wako)
- Tomoya Naito (RIKEN, Wako)
- Toshitaka Niwase (KEK, Ibaraki)
- Junko Yamagata (Kyoto Sangyo University, Kyoto)

Additionally, three mentors from the IReNA network are invited to provide talks covering professional development in academia during a special session:

- Dr. Ana Becerril-Reyes (Michigan State University, Michigan)
- Prof. Alfredo Estrade (Central Michigan University, Michigan)
- Prof. Anna Frebel (Massachusetts Institute of Technology, Massachusetts)

## Venue and Format

The workshop will take place at the **National Astronomical Observatory of Japan (NAOJ)** located in Mitaka, Tokyo. The talks will be held in the NAOJ large conference room. The workshop is planned to be in-person only.

Access information to NAOJ may be found on the website:

<https://www.nao.ac.jp/en/access/mitaka/access.html>

Additional access information will be provided on the workshop website.

## Important Dates

- April 10th *Registration opens, open call for abstracts*
- June 18th *Abstract and financial support deadline*
- August 18th *Registration deadline*
- August 28th - September 1st *Workshop*
  - August 28th *Welcome dinner*
  - August 30th *Mentor lunch*
  - August 31st *Poster Session*
  - September 1st *Poster Award*

## Registration, Fees, and Abstract Submission

All participants must register for the workshop on the indico website **by August 18th**.

We plan to provide financial support for young researchers from both the US and Japan.

Please specify on the registration form if you would like to receive support by **May 31st**.

Further details on financial support will be provided in the second circular and on the workshop website.

We openly welcome attendees to present a talk on their recent achievements surrounding Nuclear Astrophysics. Applicants are requested to submit a short abstract in the “Call for Abstracts” section of the workshop website by May 31st.

## **Young Researcher's Poster Presentation**

A poster session will be hosted close to the NAOJ conference room. Early-career researchers (PhD students and Postdocs) are especially encouraged to contribute a poster detailing their latest research surrounding Nuclear Astrophysics. Like the talks, applicants are requested to submit a short abstract on the workshop website by May 31st. Poster displays accommodating A0 portrait size will be provided by the organisers.

## **Welcome Dinner**

On August 28th after the sessions we will host a welcome dinner at the large NAOJ conference room. To confirm the number of participants, please register your interest when completing the registration form. The welcome dinner **fee is 5000 JPY**.

## **Mentor Lunch**

During August 30th a mentor lunch will be held for senior academics to share information with younger researchers on advancing their development in academia. The lunch will be **free** to all participants and there are two options: mentoring lunch with a nuclear physicist or astrophysicist.

## **Organising Committee**

Chikako Ishizuka (Tokyo Tech, Corresponding, IReNA FA8 coordinator)

Thomas W. Chillery (CNS, U Tokyo)

Akira Dohi (Hiroshima Univ.)

Nao Fukagawa (NAOJ/Soken Univ.)

Tetsuo Hatsuda (RIKEN)

Seiya Hayakawa (CNS, U Tokyo)

Shun Iimura (Rikkyo Univ.)

Miho Ishigaki (NAOJ)

Tadaaki Isobe (RIKEN)

Kanji Mori (NAOJ)

Nobuya Nishimura (RIKEN)

Kaori Otsuki (Fukuoka Univ.)

Ryo Sawada (U Tokyo)

Sota Yoshida (Utsunomiya Univ.)

Takahiro Kawabata (Osaka Univ./RCNP)

## **Code of Conduct**

All participants must follow the IReNA code of conduct found at:

<https://www.irenaweb.org/code-of-conduct.html>

The version specific to the workshop may be found on the website:

[IReNA Code of Conduct for workshop](#)

## Contact

For general inquiries please contact the workshop inquiries email:

[irena-tokyo-ws@zc.iir.titech.ac.jp](mailto:irena-tokyo-ws@zc.iir.titech.ac.jp)

## Acknowledgements

This workshop is jointly hosted by IReNA, Ukakuren, CNS, NAOJ, RCNP, and RIKEN iTHEMS, and funded by IReNA, CNS, RCNP, and RIKEN iTHEMS.

